Maryland Transit Administration

Multi-Media Inspection Report

1515 Washington Boulevard

Baltimore, Maryland

Garth N. Connor

Inspection Team Leader Office of Enforcement, Compliance & Env. Justice EPA Region III - Philadelphia

Maryland Transit Administration

Multi-Media Inspection Report

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I. Inspection Attendees

Maryland Department of the Environment (MDE)

Scott Thomson - Clean Air Act Inspector Tom Blair - Clean Water Act Inspector

Environmental Protection Agency (EPA) - Region III

George Houghton - RCRA-C Inspector Luke Wolfgang - Clean Water Act Inspector Garth Connor - SPCC & Clean Air Act Inspector

Maryland Transit Administration (MTA)

Dennis Rafferty - Safety Officer Richard Stelmach - Facilities and Maintenance Supervisor Ronald Keele - Director of Safety and Risk Management Tony Lisby - Printing Shop Manager

II. Facility Background

The inspection at this facility took place on October 19th, 2005 and began at 10:15 AM. The EPA and MDE inspectors entered the building together as a group and headed to the Office of Safety and Risk Management to begin the inspection. The EPA inspectors showed their credentials to Mr. Ronald Keele, the Director of Safety & Risk Management for the Maryland Transit Administration (MTA). The EPA inspection team also explained to Mr. Keele that they would be conducting a multi-media inspection of the entire facility. Mr. Stelmack, MTA's Facilities and Maintenance Supervisor, then arrived to show the inspectors around the facility. He described how the facility was first built in 1906 right after the Great Baltimore Fire in that part of the city. This facility is called Bush Division by the people who work there and is the oldest and largest of MTA's facilities. When it first was constructed, it was used to store and service trolley cars and was at that time part of the Baltimore Transit System. Today, the facility is where MTA's buses are stored, repaired & maintained. The trolley tracks on the floor are still present in certain areas from when it was used for trolleys. Many of the buildings used today for bus repair formerly served as trolley barns when the trolleys were in use.

III. Resource Conservation and Recovery Act (RCRA) - Subtitle C

This portion of the multimedia inspection was primarily conducted by George Houghton

of EPA's Fort Meade, Maryland office. RCRA - Subtitle C regulates the management, storage and disposal of hazardous waste. Mr Houghton filled out a RCRA Generator Checklist during the course of his inspection (See Attachment #1). Dennis Rafferty was the main MTA representative but he received assistance from various workers in the different shops that were inspected. As a result of use and/or accidents, buses that need body work or painting are repaired at this location. The facility has a total of five paint booths. Three of these booths are large enough to hold a full-size bus that is being repainted. The remaining two booths are for smaller items, such as a piece of a bus like a front hood. One large booth and the two small booths were not observed by the inspection team. According to Ed Bell, the Body Shop Supervisor, this process generates a waste paint-related material. The waste results from paint-gun cleaning and perhaps some waste paint. He showed the inspectors one large paint booth that held a freshly painted bus (photo # 458). This booth was described by facility personnel as booth #2 or the lower booth. In this booth, the inspectors observed a work table on wheels (photo #457).

According to the facility representative, two of the other booths have a similar table managed in a similar manner. The table includes a small sink which leads to a five-gallon pail and receives waste paint-related material. The table remains in the booth but is moveable in order to maneuver the buses in and out. This five-gallon container did not have a label describing its contents or the words hazardous waste. The container was also open at the time of the inspection. Periodically, the container is emptied into another container located in a flammable storage shed located near the booth. In this shed, the inspectors observed a number of containers, one of which contained hazardous waste (photo #454). The shed does have secondary containment. It is also used to store products used in the painting process. The container holding the waste was pointed out by the shop representative. The inspectors observed that it was closed. Other than the original product label, it had neither a hazardous waste label nor was it dated. At some point, this container is moved to a storage cage located within the same shop.

The storage cage was labeled for hazardous waste storage and was surrounded by a chain link fence and lockable gate. It also had secondary containment and a fire extinguisher was present. Four drums were observed (photos #455 & 456). All of the drums were completely full. Other than their original label, none of the containers were labeled with the words hazardous waste or dated with an accumulation start date. One container was open. According to the facility, all the containers held waste from their process. Someone had written 'full' on the containers. There was some confusion concerning the contents and origin of three of the drums. According to facility representatives, the day before the inspection only one drum of waste paint thinner was stored. Then three additional drums showed up in the storage area. One of the body shop representatives thought they originated from the print shop since the product labels on the drums were consistent with product used in the print shop. According to the print shop manager, Tony Lisby, he does not generate drum quantity waste. The material originally in the containers is used to wash the blankets, rollers, etc. from the printers, but it evaporates quickly and is never According to the facility, inspections are not conducted at either of the placed into drums. facility's hazardous waste storage areas.

Also observed in the storage cage, were two boxes containing Universal Waste (photo # 456). One box was labeled "mercury in lamps are tubes" the other was labeled "NICAD Batteries". The containers were closed but not dated. The wording on the containers did not follow exactly the wording required by the regulation. The facility also had a large number of lead batteries stored onsite (photo #477). Facility personnel explained that the batteries were recycled and that they were overdue for a pick-up.

The air condition shop generates a waste-compressor oil contaminated with Freon 22. It is managed as a hazardous waste by shop personnel. The shop representative was Paul Sanders. Three drums were observed in the storage area (photo #459). The center drum was empty. The drum in the foreground was full and labeled. The writing had smeared and it was hard to read. It was not dated. The third drum was about 1/4 full. It was neither labeled or dated. This container was also open with a funnel in the large bung hole. It was closed immediately when the EPA inspectors mentioned that it was not properly closed. Secondary containment was also provided. No inspections were conducted of this storage area.

In addition, the facility uses a number of Safety Kleen part washers in the performance of their mission. According to Mr. Rafferty, these units use a solvent that is non-hazardous when disposed. Also used by facility personnel are immersion parts cleaners that contain a solvent that is a hazardous waste when disposed. In Building 8, the facility has an agitation part cleaner. This solvent is a hazardous waste when disposed. Safety Kleen also manages these units. This inspector did not observe any management problems with the operation of the part washers. In addition, waste antifreeze is generated. It has been tested and found not to contain regulated amounts of Toxicity Characteristic Leaching Procedure (TCLP) metals.

The facility provided hazardous waste manifests for review during the inspection. According to Mr. Rafferty, environmental management of the facility was assumed by the Office of Safety earlier this year, this changeover took place in about April, 2005. Since then, he has tried to centralize all the manifests, and track them more carefully. Reportedly, all the manifests for 1515 Washington facility that could be located by facility personnel were provided to the EPA inspection team. No manifests older than 2004 were in facility files. Manifest retention time is actually three years according to the RCRA regulations. Inspector review of the manifests was somewhat difficult since all manifests for all the various locations were combined into one file along with billing and other information. Some of the manifests were very difficult to read, and other were found to be incomplete.

The following table lists all the manifests provided to the RCRA inspector:

MANIFEST	DATE	QUANTITY	WASTE CODES	COMMENT
NUMBER		(KG)*		

1041638	8/17/05	600 lbs (272)	1bs (272) F003	
1109422	8/11/05	150 gal (567)	D039	
110479	7/11/05	5 gal (19)	DOO6	
99567	4/18/05	2230 (1011)	D001, D009, D006	
1107257	5/9/05	125 gal (1042)	D006, D039	
1104895	12/21/04	5 gal (19)	D009	no LDR
002761	not recorded	500 lbs (227)	D001	
1099673	1/16/04	84 gal (318)	D039	

^{*}Where gallons were recorded, the kilograms were estimated by multiplying the gallons by 8.34 then converting the resultant pounds to kilograms.

MDE regulates large-quantity generators starting at 100 kilograms of waste generation per month and/or greater than 100 kilograms of hazardous waste in storage. Based on a review of the waste stored during the inspection, this location of MTA is a large-quantity generator according to the Maryland rules. Based on the number of manifests observed for 2005 as compared to 2004, the inspector suspects that other manifests exist that were not observed. According to Mr. Rafferty, the facility's RCRA contingency plan is part of the SPCC Plan. The SPCC plan was written in May, 1990 and to his knowledge had never been updated. George Houghton of EPA looked at the SPCC plan and it did not include items required by the RCRA rules, such as a coordinator, emergency equipment list, evacuation plan and contacts to EPA, etc. Training of employees is limited to worker Right-to-Know and HAZ-WOPPER. Neither of these titles appeared to be consistent with RCRA issues that employees need to know about hazardous waste management. In addition, the workers signing the manifests have not had any DOT training.

IV. The Clean Water Act (CWA)

A. Introduction

This portion of the inspection was primarily conducted by Luke Wolfgang of EPA Region III in Philadelphia. The purpose of the EPA-led CWA inspection was to address storm water and process-related wastewater associated with industrial activity from this facility. Industrial activities occurring at this 90-acre facility include the deployment and storage of approximately 500 buses, bus maintenance, bus painting, refueling of buses and other state-owned vehicles, as well as MTA's printing operations. This facility is currently permitted under Maryland's General Discharge Permit for Storm Water Associated with Industrial Activity, Permit No. 02-SW-0417. The general permit directs the discharger to develop a Storm Water Pollution Prevention Plan (SWPPP) and implement it. Major components of the plan are: (1) assess the site to determine routes and areas of drainage, locate unpermitted non-storm water discharges, and identify potential sources of pollutants, (2) take measures to control these sources, such as housekeeping, process changes, routine inspection, or containment, (3) assign responsible individuals to continually oversee storm water protection efforts, and (4) perform annual reevaluation of the adequacy of the plan itself. The facility's status with respect to the federal Spill Prevention Control and Countermeasure (SPCC) regulations was also evaluated by

the EPA inspection team..

B. Storm Water Management

At this facility, MTA process operations occur in and around nine buildings located within the fenced-in property at 1515 Washington Avenue. This property is located between Bush and Monroe Streets. Buses are stored in the rear of the lot behind the process buildings. Seven Underground Storage Tanks (USTs) are located adjacent to the Bus Washing Service Center, also referred to as Building #9. Buses and other state-government vehicles utilize this area to refuel. Storm water generated from the facility, includes, but is not limited to: drainage from building roofs, parking lots, and the UST unloading/loading area. The storm water enters on-site storm grates and flow towards an underground Oil/Grit Separator (OGS) located just inside the fence line of Bush Street. Treated water from this unit flows into the Bush Street municipal storm sewer system where it ultimately flows to the middle branch of the Patapsco River east of Russell Street.

A separate storm water collection system is located in the rear of the property behind the bus storage parking lots. This collection system does not enter the OGS, instead it runs under the property at 1300 Bush Street (not owned by MTA) where it enters the Bush Street municipal storm sewer system. According to Dennis Rafferty, MTA had a consulting firm develop a SWPPP but explained to the EPA inspection team that MTA, at the management level, had never made the decision to commit the necessary resources to actually implement the SWPPP. A further review of facility records indicates that MTA is not performing an annual comprehensive site evaluation and conducting employee training required by the General Industrial Storm Water Discharge Permit No. 02-SW-0417.

C. Process Wastewater Generation

MTA generates process-related wastewater during several operations at this facility. These wastewater streams include effluent from the bus-washing process as well as wastewater from a steam cleaning operation focused on engine and parts cleaning. The print shop also generates process-related wastewater from the film developing machine. All process wastewater generated on site is sent to the local Baltimore City Publicly Owned Treatment Works (POTW).

The first operation at the facility which generates wastewater is the bus-cleaning operation. In building #9, also referred to as the Bus Washing Service Center, MTA operates two bus-washing stations designed to treat and recycle wash water. Wash water is collected in floor drains where it is gravity fed to a common sump prior to treatment. The first stage of treatment includes a centrifugal unit designed to remove oils/residues and large solids. In the second stage, the wastewater is pumped through a bag filter apparatus where fine particles are removed from the wash water. Finally, a chemical disinfectant is added. The cleaned/filtered wash water is sent to the recycled-water holding tanks. Overflow from the recycled-water holding tanks is pumped to an underground oil water separator pit prior to being sent to the POTW. The wastewater treatment operation for the second washing station, lines 1 and 2, is inoperable. According to Richard Stelmack, Facilities and Maintenance Supervisor, this results in dirty wash water

entering the recycled-water holding tanks. The final rinse for the buses is composed entirely of city water. Recent modifications were made to storm grates located outside of the Bus Washing Service Center to reroute drainage to the city sewer line.

MTA also generates wastewater during a steam cleaning operation occurring in Buildings #2 and #4. Buses are backed over a collection pit where de-greasing chemicals are applied to the engine and washed off. Wastewater from this operation enters the collection sump/pit where large particles settle out. Settled material from the pit is cleaned quarterly. Overflow from this sump are gravity fed to an oil-water separator prior to being discharged to the POTW. Wastewater from the two parts cleaners located in this area are also sent to the oil-water separator prior to being discharged to the local POTW. MTA also operates a print shop operation in this facility. EPA inspectors observed a film development machine discharging process wastewater into a nearby floor drain. According to Mr. Tony Lisby, Print Shop Manager, the floor drain ties into a sanitary sewer line (photo #462). This waste stream should be analyzed for metals such as cadmium and silver using the Toxicity Characteristic Leaching Procedure.

EPA inspectors observed a floor drain located in Building #5, also known as the A/C Repair Shop. Floor drains were also identified in the maintenance pits of Building #6, also known as the Body Shop Building. Richard Stelmack did not know with certainty the ultimate destination of the above mentioned floor drains but he believes they are tied into the city sewer line. Without certain knowledge of floor drains located throughout the facility, there is certainly a potential for unwanted pollutants entering the storm drain system in certain areas.

MTA currently does not conduct any sampling or monitoring of the wastewater being sent the POTW by both the bus-washing and the steam-cleaning operations. EPA inspectors asked Dennis Rafferty for a pre-treatment agreement/permit with the local Baltimore City POTW. MTA was unable to produce any such agreement, therefore EPA inspectors were unable to determine compliance with pre-treatment operations and monitoring requirements occurring with respect to process wastewater generated at this facility.

D. SPCC Inspection

This portion of the inspection was primarily conducted by Garth Connor of EPA Region III in Philadelphia. The facility has greater than 134,000 gallons of oil-storage capacity in total between the above and below ground tanks located onsite. The facility could potentially have a spill reaching navigable waters if one of the larger tanks had a significant spill. An oil spill at the facility could flow into the municipal storm sewer system and eventually reach the Patapsco River and then possibly flow into the Cheasepeake Bay. As described above, the facility had a old SPCC plan dated May 21, 1990 for this facility which was provided to the EPA inspectors (See Attachment #2). A number of the tanks located at the facility have changed since it was written. The plan has never been updated or properly implemented. Several large aboveground tanks of oil were observed by EPA inspectors without any secondary containment and in close proximity to storm drains (photo #475). A review of the plan showed that the contact person listed in the plan is no longer employed by the facility.

V. Clean Air Act

This portion of the inspection was primarily conducted by Garth Connor of EPA Region III in Philadelphia. In terms of the Clean Air Act, this facility is presently considered a minor air source. The air permit is dated April 21, 1981 and was written by the Maryland Department of the Environment (See Attachment #3). The permit does not have an expiration date of any kind. The permit is a general permit to construct and describes some of the equipment located at the facility at the time it was written. For example, it describes the oil-fired boilers and the three large paint booths at the facility. However, there are a number of air pollution sources at the facility today that are not described in the air permit. For example, as part of the RCRA-C inspection, the EPA inspection team went into the facility's print shop. There were two large printing presses in that facility which were not described in the air permit. These printing presses were cleaned with organic solvents after each print job was completed, and there was blue flexible tubing running to an exhaust system in the ceiling (photo #473). These printing presses are sources of volatile organic compounds, although the total amount of emissions is uncertain at this time.

A review of the air permit also indicated that the two smaller paint booths are not described in the permit and neither is the vehicle refueling area. The inspectors also examined the steam-cleaning area where bus engines are coated with a solvent and then steam cleaned (photo # 475). This equipment also appeared to generate air emissions, and inspectors observed a solvent odor in the vicinity of this operation. It appears that no one has done a recent emissions inventory to see exactly how many different air emissions sources the facility has and the total air emissions per year. A more careful review and evaluation of the facility is needed to determine if the facility should be re-classified as a major source.

The inspection team visited Building #8 which is also called the Facilities Maintenance building. This building is where facility personnel perform air conditioning maintenance & recharge. According to facility staff, the facility has about eight to ten CFC recycling/recharge machines. A subsequent review of the EPA files showed that none of these machines was properly registered with EPA. After the inspection, EPA did receive paperwork from MTA showing that the employees performing this work appeared to have the proper training to perform this work.

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D. SPCC Inspection

VI. Attachments

Attachment #1 - RCRA Generator Checklist Attachment #2 - Facility's SPCC Plan Attachment #3 - Facility's Air Permit Attachment #4 - Inspection Photographs

MTA Railcar Facility 5801 Wabash Avenue Baltimore, Maryland

I. Attendees

Maryland Department of the Environment

Tom Blair - Clean Water Act Inspector

Environmental Protection Agency - Region III

George Houghton - RCRA-C & RCRA-I Inspector Luke Wolfgang - Clean Water Act Inspector Garth Connor - SPCC Inspector

Maryland Transit Administration (MTA)

Ron Crockett, Safety Officer Ed Kegel, Rail Car Inspection & Service Supervisor

Dennis Rafferty, Safety Officer

II. Background

The EPA inspectors showed their credentials to Ron Crockett. Ed Kegel, Rail Car Inspection & Service Supervisor took the inspection team around the facility along with Dennis Rafferty. This facility has approximately 54 employees and is known by the people who work there as Metro Railcar. It's operation is separated into four distinct units. Rail car maintenance does maintenance and repair on the rail cars themselves. The second unit is called maintenance of way which works on the rail car tracks and making certain the tracks are working properly. The system maintenance unit controls the electrical power and track signals. Lastly, the facility maintenance unit manages and repairs the station stops. The EPA inspectors explained to facility personnel at the beginning of the inspection that this was a multi-media inspection of the entire facility.

III. Resource Conservation and Recovery Act - Subtitle C & I

A. RCRA-C Inspection

The RCRA-C inspection was primarily conducted by George Houghton. RCRA-C is concerned with the management, storage and disposal of hazardous waste. The EPA inspection team observed a number of part washers serviced by Safety Kleen at this location. EPA inspectors also observed a tank containing compressor oil contaminated with Freon. The container was not marked as a hazardous waste but it was closed and secondary containment was provided. The aboveground storage tank holding this waste had about a 250-gallon capacity (photo #485). If the used oil contains more than 1,000 parts per million of total halogen, it is presumed to be a hazardous waste. This same waste was treated as a hazardous waste by facility personnel at the bus maintenance facility. At this point, the actual halogen content is not known and it has never been determined by the facility if it is a hazardous waste. On an outside storage pad, numerous containers of useable products were observed. Many of these containers were rusted and/or the labels were missing. EPA inspectors also observed several rusty alkaline drums in this area (photo #479 &480). According to Edward Kegel, Supervisor of Railcar Inspection and Service, MTA no longer uses the alkaline product in the rail car washing operation. It is suggested that the facility determine the usefulness of all of these materials, and properly dispose of the ones determined to be a waste. The EPA inspectors were concerned that a leak could result in the improper disposal of a regulated waste. The area has no secondary containment or roof.

EPA inspectors believe that if MTA properly inventories all possible wastes generated on-site from the facility (i.e. rusty drums and old chemicals out on the storage pad, the compressor oil tank contaminated by Freon, etc.), there is a strong potential that MTA is improperly storing hazardous waste. Fluorescent light tubes are crushed on-site using a homemade device (photo #484). According to the facility, all the tubes are all green tipped, suggesting that the mercury level is below the regulatory limit.

Maryland Transportation Administration 1515 Washington BLD. Baltimore, Maryland 21230

Hazardous Waste RCRA -C

This portion of the multimedia inspection was conducted by George Houghton from the Fort Meade Office of OECEJ. Dennis Rafferty was the MTA representative along with various workers from the shops.

As a result of use and/or accidents buses that need body work or painting are repaired at this location. The facility has 5 paint booths. Three are large enough to hold a bus. The remaining 2 booths are for smaller items. One large booth and two small booths were not observed. According to Ed Bell, the Body Shop Supervisor, this process generates a waste paint related material. The waste results from paint gun cleaning and perhaps some waste paint. He showed the inspectors one large paint booth that held a freshly painted bus (photo 458). This booth was described as booth 2 or the lower booth. In the booth, the inspectors observed a work table on wheels (photo 457). According to the facility representative, two of the other booths have a similar table managed in a similar manner. The table includes a small sink which leads to 5 gallon pail and receives waste paint related material. The table remains in the booth but is moveable in order to maneuver the busses in and out. This 5 gallon container did not have a label describing its contents or the words hazardous waste. The container was also open. Periodically, the container is emptied into another container located in a flammable storage shed located near the booth. In this shed, the inspectors observed a number of containers, one of which contained hazardous waste (photo 454). The shed has secondary containment. It is also used to store products used in the painting process. The container holding the waste was pointed out by the shop representative. The inspector observed that it was closed. Other than the original product label, it had neither a hazardous waste label nor was it dated. At some point this container is moved to a storage cage located within the same shop.

This cage was labeled for hazardous waste storage and surrounded by a chain link fence and lockable gate. It also had secondary containment and a fire extinguisher was present. Four drums were observed (photo 455 & 456). All were full. Other than their original label, none of the containers were labeled with the words hazardous waste or dated with an accumulation start date. One container was open. According the facility, all the containers held waste from their process. Some one had written 'full' on the containers. There was some confusion concerning the contents of three of the drums. Yesterday, one drum of waste paint thinner was stored. Then three additional drums showed up. One of the body shop representatives thought they originated from the print shop since the product labels were consistent with the print shop. According to print shop leader, Tony Lisby, he does not generate drum quantity waste. The material originally in the containers is used to wash the blankets, rollers, etc. from the printers, but it evaporates quickly. According to the facility, inspections are not conducted at either of the hazardous waste storage areas.

Also observed in the storage cage, were two boxes containing Universal Waste (photo 456). One box was labeled "mercury in lamps arc tubes" the other was labeled "NICAD Batteries". The containers were closed but not dated. The wording on the containers did not follow exactly the wording required by the regulation.

The air condition shop generates a waste compressor oil contaminated with Freon 22. It is managed as a hazardous waste. The shop representative was Paul Sannders. Three drums were observed (Photo 459). The center drum was empty. The drum in the foreground was full and labeled. The writing had smeared and it was hard to read. It was not dated. The third drum was about 1/4 full. It was neither labeled or dated. This container was also open with a funnel in the large bung hole. It was closed immediately. Secondary containment was also provided. No inspections were conducted of the storage area.

In addition, the facility uses a number of Safety Kleen part washers in the performance of their mission. According to Mr. Rafferty, these units use a solvent that is non hazardous when disposed. Also used, are immersion parts cleaners that contain a solvent that is a hazardous waste when disposed. In Building 8 the facility has an agitation part cleaner. This solvent is a hazardous waste when disposed. Safety Kleen also manages these units. This inspector did not observe any management problems with the operation of the part washers. In addition, waste antifreeze is generated. It has been tested and found not to contain regulated amounts of TCLP metals.

The facility provided manifests for review during the inspection. According to Mr. Rafferty, environmental management was assumed by the Office of Safety earlier this year, about April. Since then he has tried to centralize the manifests. Reportedly, all the manifests for 1515 Washington BLD. were provided. No manifests older than 2004 were in facility files. Manifest retention is 3 years. Review of the manifests was somewhat difficult since all manifests for all the various locations were combined into one file along with billing and other information. Some of the manifests were difficult to read.

The following table lists the manifests provided to the inspector:

MANIFEST	DATE	QUANTITY	WASTE CODES	COMMENT
NUMBER	0/17/05	(KG)*	F002	
1041638	8/17/05	600 LBS (272) F003		no return, no LDR
1109422	8/11/05	150 gal (567)	D039	
110479	7/11/05	5 gal (19)	DOO6	
99567	4/18/05	2230 (1011)	D001, D009, D006	·
1107257	5/9/05	125 gal (1042)	D006, D039	
1104895	12/21/04	5 gal (19)	D009	no LDR
002761	not recorded	500 lbs (227)	D001	
1099673	1/16/04	84 gal (318)	D039	

^{*}Where gallons were recorded, the kilograms were estimated by multiplying the gallons by 8.34 then converting the resultant pounds to kilograms.

MDE regulates large quantity generators starting at 100 kg of generation per month or greater than 100 kg of hazardous waste in storage. Based on a review of the waste disposed, this location of MTA is a large quantity generator for the Maryland rules. Based on the number of manifests observed for 2005 as compared to 2004, the inspector suspects that manifests exist that were not observed.

According to Mr. Rafferty, the facility contingency plan is part of the SPCC Plan. The plan was written in 1990 and to his knowledge had never been updated. This inspector looked at the plan and it did not include items required by the RCRA rules, such as a coordinator, emergency equipment list, evacuation plan and contacts to EPA, etc.

Training of employees is limited to worker Right- to- Know and HAZ-WOPPER. Neither of these titles appeared to be consistent with RCRA issues that employees need to know about hazardous waste management. The workers signing the manifests have not had any DOT training.

Maryland Department of Transportation - Metro Rail Car 5801 Wabash Avenue Baltimore, Maryland

Edward Kegel, superintendent, of the railcar servicing was the guide for this location of MTA. This location repairs and inspects rail cars for the Baltimore City's subway system.

RCRA - C did not appear to be an issue at this location. Observed, were a number of part washers serviced at by Safety Kleen. Also observed, was a tank containing compressor oil contaminated by Freon. The container was not marked as a hazardous waste but it was closed and secondary containment is provided. The AST storing this waste had about a 250 gallon capacity (photo 485). If the used oil contains more than 1,000 ppm of total halogen it is presumed to be a hazardous waste. At this point the halogen content is not known.

Fluorescent light tubes are crushed on-site using a home made device (photo 484). According to the facility, all the tubes are all green tipped, suggesting that the mercury level is below the regulatory limit.

On an outside storage pad numerous containers of useable products were observed. Many of these containers were rusted and/or the labels were missing. It ass suggested that the facility determine the usefulness of these materials. The inspector is concerned that a leak could result in the improper disposal of a regulated waste. The area has no secondary containment or roof.

RCRA - I Underground Storage Tanks (Maintenance of Way)

The facility has one regulated UST that contained Diesel fuel for motorized vehicles. Another tank is used to store heating fuel at the site and is exempt from the leak detection portion of the rules. A third tank is not in use and reportedly abandoned in place.

The Diesel tank, installed in 1992, is capable of holding 10,000 gallons of fuel. The Veeder Root TLS 350 monitors the tank. The equipment accomplishes a leak check at least once per month. The inspector observed the tank monitoring for October 2005 and it passed on the 14th. The person who maintains the records was not on site a the time of this inspection and only limited records were available for review. It appears that a daily inventory report is kept at the facility but no additional leak reports could be found. Facility personnel did not know the tank or piping construction but they thought it was plastic. This inspector's observations did confirm plastic piping. No line leak test has been accomplished, based on worker recollection. No sump monitor was observed. Instructions for the Veeder Root were not available. A spill bucket was installed at the fill and it contained some liquid. No overfill was observed in the fill pipe. It is presumed the overfill is in the vent. No keys were available for the dispenser therefore no observations were made at that location.

ATTACHMENTS FOR MTA

RCRA - C 1515 Washington Blvd.

- 1. EPA Generator Checklist
- 2. Photographs

RCRA - C 5801 Wabash Ave.

1. Photograph

RCRA - I 5801 Wabash Ave.

- 1. Photographs
- 2. Checklist
- 3. UST notification
- 4. UST results for tank testing
- 5. Printouts from INCON

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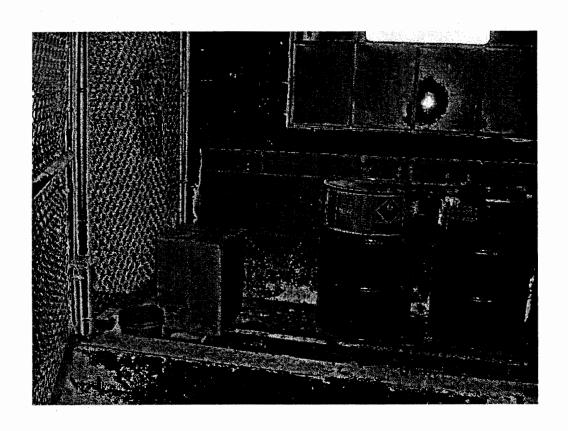
This container was located in the flammable storage shed, it held waste from the paint booths. The container was closed, but not dated or labeled as a hazardous waste. No leaks were observed.

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These four drums of waste were located in the storage cage. According to the facility, they are waste for disposal. The containers were not labeled or dated. All were closed except for the white drum. There was some confusion where three of the drums originated. Secondary containment is also provided..

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The two boxes contained Universal waste. The larger box was labeled "mercury in lamps arc tubes" the smaller box was labeled "NICD Batteries". The box labeling did not conform the Universal waste rules and the they were not dated.

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This table is located inside the lower paint booth. It is used by the painters as a work station. A small sink on the table is used to pour waste from the spray gun cleaning. The waste flows by tube to a 5 gallon can (arrow). The sink was open and the can was not labeled for content other than the original product label. The jerri can in the foreground contains paint solvent.

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Lower paint booth with a freshly painted bus.

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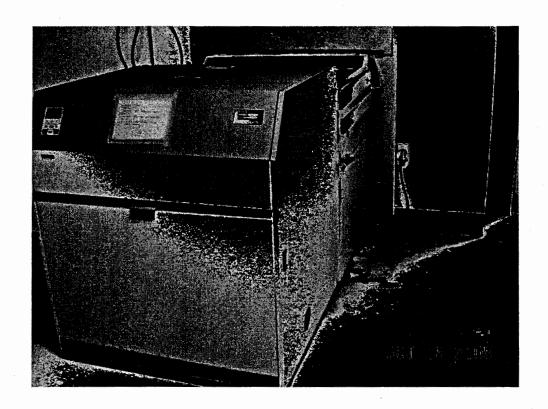
AC Shop, this is the accumulation area for waste compressor oil contaminated with Freon 22. The container in the foreground is full and labeled but not dated. The center drum is empty. The container in the background was about 1/4 full, not dated or labeled for content. Secondary containment is provided.

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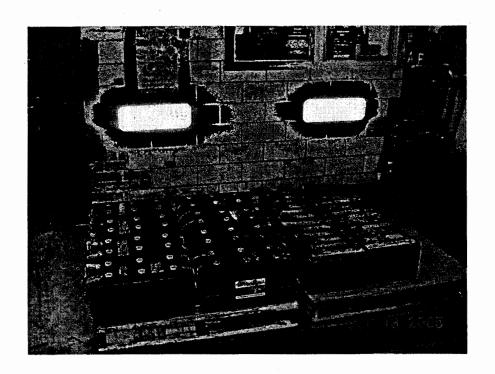
Agitation parts cleaner, the solvent used in this container is a hazardous waste when disposed. Safety-Kleen manages the waste.

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The print shop developer, the waste developer is discharge directly to the sanitary. Reportedly , this waste does not contain regulated quantities of silver.

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October 25, 2005

RESOURCE CONSERVATION & RECOVERY ACT SUBTITLE I PART 280 UNDERGROUND STORAGE TANKS (USTs) COMPLIANCE EVALUATION INSPECTION

MARYLAND TRANSIT ADMINISTRATION BUSH DIVISION BALTIMORE, MARYLAND 21230

UST Fac. ID: 0014884

Facility Address

1515 Washington Blvd. Baltimore, Maryland 21230

Investigation Date

September 21, 2005

Investigators

Troy Jordan, Region 3, EPA, Environmental Scientist Luke Wolfgang, Region 3, EPA, Environmental Engineer Mike Frank, MDE, Environmental Investigator

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APPENDICES

Attachment A- Facility Diagrams & UST Notification

Attachment B- Inspection Photographs

Attachment C- Manifolded Tank Diagram

Attachment D- Release Detection Records

Attachment E- MTA Tank Inventory Table

Attachment F- Commercial Fuel Systems Documents

MEDIA REPORT

On September 21, 2005, the United States Environmental Protection Agency, Region III ("EPA"), Office of Enforcement, Compliance and Environmental Justice conducted a Compliance Evaluation Inspection under the Resource Conservation & Recovery Act Subtitle I ("RCRA"), of the Maryland Transit Administration (MTA) Bush Division Baltimore, MD facility. USEPA Inspectors Troy Jordan and Luke Wolfgang conducted the inspection and were accompanied by Mike Frank, Environmental Investigator for Maryland Department of the Environment (MDE). The facility was represented by:

Dennis Rafferty, Safety Officer, Office of Safety, MTA
Richard Stelmack, Superintendent, Facility Maintenance, MTA
Ronald A. Keele, Executive Director, Office of Safety and Risk Management, MTA
Bernadette Bridges, Deputy Director, Office of Safety and Risk Management, MTA
Wayne Jones, P.E., Chief, Mechanical/ Electrical, Facilities Engineering, MTA

This report discusses RCRA Subtitle I compliance issues as they relate to Underground Storage Tanks (USTs) and operations at the MTA Bush Division facility.

REGULATORY SUMMARY

In 1984, Congress responded to the increasing threat to groundwater posed by leaking underground storage tanks (USTs) by adding Subtitle I to the Resource Conservation and Recovery Act (RCRA). RCRA required EPA to develop a comprehensive regulatory program for USTs storing petroleum or certain hazardous substances to protect the environment and human health from UST releases. Federal UST regulations require preventive measures (such as spill, overfill, and corrosion protection), release detection monitoring, corrective action, and demonstration of financial resources to carry out corrective action. EPA's 1988 regulations set minimum standards for new tanks and required owners of existing tanks to upgrade, replace, or close them. MTA Bush Division operates seven USTs as defined by RCRA Subtitle I making them subject to the UST regulations under 40 CFR 280.

ON-SITE INSPECTION SUMMARY

EPA's compliance evaluation inspection was conducted at the Baltimore, MD facility on September 21, 2005. Credentials were presented to Richard Stelmack, and Dennis Rafferty of MTA.

Table 1 represents the storage tanks present at MTA Bush Division facility.

Table 1
USTs & ASTs present at
MTA Bush Division

Tank Number	Type of Tank	Capacity (Gallons)	Product	Date Installed	Tank Constructio	Lines	Regulator y Status
W-1	UST	10,000	Gasoline	1976	Fiberglass	Fiberglass	Active
W-2	UST	10,000	Gasoline	1976	Fiberglass	Fiberglass	Active
W-3	UST	20,000	Diesel	1976	Fiberglass	Steel	Active
W-4	UST	20,000	Diesel	1976	Fiberglass	Steel	Active
W-5	UST	20,000	Diesel	1976	Fiberglass	Steel	Active
W-6	UST	20,000	Diesel	1976	Fiberglass	Steel	Active
W-7	UST	6,000	Lube Oil	1976	Fiberglass	Fiberglass	Active '
W-35	AST	unknown	Used Oil	unknown	Steel	Steel	Not Regulated *
W-36	UST	20,000	Heating Oil	1993	Steel	Fiberglass	Not Regulated *
W-37	AST	1,000	Used Oil	1993	Steel	Steel	Not Regulated *
W-38	AST	500	Used Oil	1995	Steel	Steel	Not Regulated *

The MTA Bush Division facility operates these tanks as part of a public transportation bus terminal servicing the City of Baltimore. Operations at MTA Bush Division include fueling, cleaning, and repairs of buses. The two gasoline USTs (Tanks W-1 & W-2) are utilized by MTA and other state agencies that operate gasoline powered vehicles and equipment. The gasoline USTs are owned and registered to MTA, however MTA has a contract with Commercial Fuel Systems, Inc. of Mt. Airy, MD to manage these USTs. The remaining tanks are owned and operated by MTA. The four diesel USTs (Tanks W-3, W-4, W-5, & W-6) are an interconnected system which are the primary tanks used to re-fuel buses stationed at the Bush Division. The lube oil UST (Tank W-7) is utilized as new oil for lubrication in the buses. The heating oil UST (Tank W-36) is utilized for heating of the buildings at the facility and are not regulated under 40 CFR 280.

Tank System Design

Tanks W-1 and W-2 are 10,000 gallon fiberglass USTs installed in 1976 that operated independently as suction systems. A check valve was not observed under the dispenser for tank W-1. Stage I & II Vapor Recovery is present for both tanks and dispensers. MTA represents the lines associated with these tanks as fiberglass, however steel swing connectors were observed under each of the dispensers. See Attachment A Facility Diagram and Attachment B Inspection Photographs.

Tanks W-3, W-4, W-5, and W-6 are each 20,000 gallon USTs installed in 1976 that store diesel fuel. These tanks are manifolded by fiberglass lines between each of the tanks in three positions for each tank. See Attachment C Manifolded Tank Diagram and Attachment B

Tank & Lines Construction Materials are listed as represented by MTA officials.

* These tanks are not regulated under 40 CFR 280, however other regulations may be applicable to these tanks and their operations.

Inspection Photographs. A total of nine ball valves exist in this system, three valves are present between each tank. MTA stated that these valves are not utilized and inspection observations indicate that these steel valves are not regularly exercised. The first of the manifold lines connects each of the tanks to the remote fill port. The second and third of the manifold lines connect each tank of the tank systems to the dispensing submersible pumps located in Tank W-3 and W-6.

There are two access points for the delivery of fuel to this system. The tank system is designed with a remote fill location located between tank W-3 and W-4. During the fueling operations at the remote fill location there are no controls implemented to determine where the fuel is delivered. Fuel delivered to the remote fill can enter any of the tanks in the system despite there current level of fuel. The second access point for delivery of fuel is by direct fueling of Tank W-6. Tank W-6 has a direct drop tube into the tank, however Tank W-6 must be intentionally overfilled to deliver fuel to the other three USTs in the system. Tank W-6 is also connected to an aboveground day tank. The lines connecting this tank are not known. This AST is also not listed as an active tank by MTA, but was depicted in the manifolded tank diagram.

Each tank is installed with a ball float valve directly connected to the tank and its vent line to operate as overfill protection. Fuel is dispensed through a single steel line connect to the two submersible pumps connected directly to Tank W-3 and W-6. The steel line joins at a "T" between Tank W-4 and W-5 and continues inside the fueling and maintenance garage. The steel lines associated to this tank system are contained in a below grade concrete trench without any corrosion protection. The two submersible pumps work together in a competing effort to deliver fuel through a single line while at the same time drawing from all 4 tanks. The competing submersible pumps are also utilized to provide a siphon on the functional element at opposite ends of the tank system. The functional elements are copper lines without corrosion protection and non-functional pressure gauges. The submersible pumps are connected directly to Tank W-3 and W-6, as well as a direct connection to the second and third manifold lines to provide fuel to the dispensing line. The submersible pumps are equipped with manual line leak detectors.

Tank W-7 is a 6,000 gallon fiberglass UST installed in 1976 that stores lube oil. This tank operates independently as a suction system with a fiberglass line.

Release Detection

All seven of the USTs are equipped with an automatic tank gauge probe. These probes are connected to a Veeder-Root TLS-350 Automatic Tank Gauge System(ATG). Tanks W-1, W-2, and W-7 show passing release detection records for the past year, however there are no records of any passing test results for any year for the manifolded diesel tanks(W-3,W-4,W-5,W-6).

Suction Systems (USTs W-1, W-2, and W-7)

The three suction USTs are not required to have release detection for the lines, if the piping operates at less than atmosphere pressure, slopes back to the tank, and have a single check valve in the line located directly below the suction pump. A check valve was observed under the

dispenser for tank W-1, however it was not observed for tanks W-2 and W-7.

- Tank W-1: Release detection is provided through the use of a Veeder Root TLS-350 automatic tank gauge. Records indicate passing monthly test between October 2004 and September 2005, with the exception of December 2004 (See Attachment D Release Detection Records). In December 2004, there are no passing release detection records. The last tank tightness test was performed on 08/22/2000. The tank passed the tightness test. The suction lines do not have release detection. The suction line was last tested on 08/22/2000 and passed the performance test.
- Tank W-2: Release detection is provided through the use of a Veeder Root TLS-350 automatic tank gauge. Records indicate passing monthly test between October 2004 and September 2005 (See Attachment D Release Detection Records). The last tank tightness test was performed on 08/22/2000. The tank passed the tightness test. The suction lines do not have release detection. The suction line was last tested on 08/22/2000 and passed the performance test.
- Tank W-7: Release detection is provided through the use of a Veeder Root TLS-350 automatic tank gauge. Records indicate passing monthly test between October 2004 and September 2005 (See Attachment D Release Detection Records). The last tank tightness test was performed on 08/22/2000. The tank passed the tightness test. The suction lines do not have release detection. The suction line was last tested on 08/22/2000 and passed the performance test.

Pressure System (USTs W-3, W-4, W-5, W-6)

The four manifolded USTs are operated by two submersible pumps on tank W-3 and W-6. The submersible pumps are equipped with two Red Jacket Line Leak Detectors that are connected to a single dispensing line. There are no records of the line leak detectors ever being tested. Each individual tank is equipped with an automatic tank gauge probe connected to a Veeder-Root TLS-350 automatic tank gauge. While the automatic tank gauge attempts to measure the inventory in each of the tanks, the design of the systems does not allow for these measurements to be accurate. Currently there are no controls to maintain product levels or account for transfer of product from one tank to another tank. When fuel is delivered to the system the automatic tank gauge attempts to measure the increase in volume, however depending on which fueling port is used the increase in volume could indicate an overfill of the tank or a continuous increase over time until the entire tank system finds an equilibrium. This will cause constant variables that the automatic tank gauge can't interpret accurately. While deliveries of fuel to the tanks are a problem for the automatic tank gauge, the design of the tank system causes a much more significant problem for the automatic tank gauge when dispensing fuel. The submersible pumps at W-3 and W-6 are connected to a single delivery line. The submersible pumps are also connected to by separate connection lines to tanks W-4 and W-5 (See Attachment C). When fuel is dispensed both submersible pumps are activated and fuel from W-3 and W-6 flow into a single line to the dispensing island. At the same time the submersible pump at W-6 is also pulling fuel from W-5, W-4, and W-3 into W-6, and the submersible pump

at W-3 is pulling fuel from W-4, W-5, and W-6. This action reads as sudden losses and gains by the automatic tank gauge and cannot interpret the conditions of each of the tanks. While each of the tanks are equipped with automatic tank gauge probes, there are no records of passing release detection for any of the pressurized tanks. Records indicate failing monthly test between October 2004 and September 2005 (See Attachment D Release Detection Records). The last tank tightness test was performed on 08/22/2000 for W-5 and W-6. The tanks failed the tightness test. The tester noted that tanks W-3 and W-4 would also fail due to the design of the tank system. There are no other records of test being conducted on these tanks. There are also no records of any release detection or testing ever being conducted on the lines associated with this tank system.

Corrosion Protection

Suction Systems (USTs W-1, W-2, and W-7)

MTA representative Dennis Rafferty presented the inspectors with a Tank Inventory Table for the Bush Division that indicated these USTs are fiberglass and equipped with fiberglass lines (See Attachment E MTA Tank Inventory Table). While fiberglass tanks and lines would not require corrosion protection, during the field observation metal swing lines under the dispensers were in direct contact with the ground for tanks W-1 and W-2 (See Attachment B Inspection Photographs). No corrosion protection was observed for these portions of the piping. In addition, documents from the tank tester noted earlier in Attachment D stated that the lines associated with W-1 and W-2 were steel. Commercial Fuel Systems, Inc., the operator of tanks W-1 and W-2 also note that the lines associated with these tanks are steel (See Attachment F Commercial Fuel Systems Documents). Further evaluation and documentation is necessary to determine the necessity of additional corrosion protection for these lines. Tank W-7 is also stated as fiberglass and having fiberglass lines, however no observations of the dispensing line was conducted to confirm their material of construction.

Pressure System (USTs W-3, W-4, W-5, W-6)

Tanks W-3, W-4, W-5, and W-6 are noted as fiberglass tanks with bare steel lines in Attachment E. These tanks are manifolded with fiberglass lines between each tank however there are steel valve associated with this piping and field observations indicated corrosion was evident with these valves (See Attachment B Inspection Photographs). The steel lines associated with these tanks are in three sided concrete trench between the submersible pump and the bus garage where fuel is dispensed. The piping in these trenches is laid directly on the concrete with a steel plate covering the trench. The entire length of the steel piping showed extensive corrosion (See Inspection Photographs). The steel piping had no corrosion protection. The manifolded tank system is also equipped with a copper line run in a PVC pipe to maintain a siphon between the tanks. This copper line would hold fuel and no corrosion protection was present for this line. Monitoring of this copper line is designed to be connected to a pressure gauge located inside the submersible pump sump. Attempts to read this gauge were made however the needle on the gauge was completely corroded.

Spill & Overfill

Suction Systems (USTs W-1, W-2, and W-7)

Tank W-1 and W-2 comply with spill protection requirements through the use of a spill bucket attached to the fill line for each of the USTs. Overfill protection was not observed for either of these tanks. MTA had no documentation at the time of the inspection to substantiate that there was any overfill protection. The drop tube was permanently fixed to each of the tanks.

Tank W-7 meets spill protection requirements through the use of a spill bucket attached to the fill line. Overfill protection is achieved through the use of a flapper valve installed with the drop tube that was observed during the field observation portion of the inspection.

Pressure System (USTs W-3, W-4, W-5, W-6)

Tanks W-3, W-4, W-5, and W-6 are all equipped with an overfill ball float valve in the vent line, however this method of overfill protection is ineffective for this tank system due to its design. Ball float valves normally work by creating back pressure as the product level rises to a point that a small ball closes the vent line associated with the tank. By blocking the vent line the tank can not breath and new product is stopped from entering the tank. Due to the manifolded tank design and delivery operations these overfill protection devices will regularly fail. Because the tanks are openly manifolded a full tank will continue to receive fuel because it is vented by the vent line associated with the tank that contains the least amount of fuel. During the field observation, the sump containing the ATG probe for Tank W-3 had a strong odor of diesel and visible staining on the ground in the sump. The ATG probe was not sealed to the port opening and would allow fuel to escape from this portion of the tank without detection. MTA personnel (Richard Stellmack) stated that drivers for fuel haulers have regularly placed measuring sticks in the ball valve ports for these tanks and forced the ball float to be completely ineffective during fuel deliveries. MTA has since placed locks on the ball float valve ports to help prevent this activity.

Tank W-6 is the only tank in the manifolded system that receives fuel deliveries directly. Tank W-6 is filled directly by means of a permanent drop tube fixed to the tank. This fill line is also equipped with a spill bucket to meet the spill protection requirements for W-6. The remaining tanks are filled by a remote fill location between tanks W-3 and W-4 and by siphoning tank W-6. The remote fill is equipped with a spill bucket to meet spill protection requirements. Fueling at the remote fill location creates fuel being placed at random in any of the tanks during a fuel drop. This action along with inaccurate inventory readings, and ineffective overfill protection create an imminent potential for large releases during fueling operations. These tanks are also equipped with audible alarms for overfill protection, however no positive shutoff occurs with these alarms and with the design of these tanks it is highly likely that these alarms are regular occurrence during fueling operations.

Financial Assurance

MTA is a state agency and self insures as a State of Maryland government agency.

INSPECTION SUMMARY

During the field observation and post inspection file review several additional area of concern were also noted and listed below.

- Shear valves for diesel dispensers inside the bus garage were not properly installed.
- A check valve was not present under the #1 dispenser for W-1.
- Dispensing lines were not observed for W-7 and are registered as unknown.
- Corrosion was observed on all of metal valves and components throughout the tank system.
- Tank W-6 is shown to be connected to an aboveground storage day tank but there is no documentation of material of construction, release detection, or how the underground lines that connect the two tanks operate.
- The post inspection file review of the facilities UST Registration shows a tank W-8 containing antifreeze and W-11 containing waste oil as still active tanks at this facility. These tanks were not observed during the inspection and further documentation will be necessary to account for these tanks.

Overall the tank systems at the MTA Bush Division lack several federal requirements that stem directly from the design of the manifolded diesel tank system.

AREAS OF ALLEGED NONCOMPLIANCE

Maryland Transit Administration currently fails to meet the Underground Storage Tank requirements of 40 CFR 280. Most notably, the Maryland Transit Administration failed to do the following;

- 1. 40 CFR § 280.21(c) Piping upgrade requirements. Metal piping that routinely contains regulated substances and is in contact with the ground must be cathodically protected in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and must meet the requirements of 40 CFR § 280.20(b)(2)(ii), (iii), and (iv).
 - a. MTA operates steel piping in a concrete trench that delivers fuel from tanks W-3,W-4,W-5, and W-6 that is not cathodically protected.
 - b. MTA operates steel ancillary equipment in association with all of the underground storage tanks at the facility that is in contact with the ground and regulated substances that are not cathodically protected (i.e., valves and swing joints).
 - c. MTA operates copper piping to maintain a siphon on the manifolded diesel tanks and would hold a regulated substance that is not cathodically protected.
- 2. 40 CFR § 280.21(d) Spill and overfill prevention equipment. To prevent spilling and overfilling associated with product transfer to the UST system, all existing UST systems must comply with new UST system spill and overfill prevention equipment requirements specified in 40 CFR § 280.20(c).

- a. MTA operate four manifolded diesel USTs (W-3,W-4,W-5, and W-6)that are equipped with ball float valves as overfill protection equipment. The remote filling operations and tank design make this form of overfill protection inadequate with meeting the requirements of 40 CFR § 280. 20(c).
- b. MTA operates two gasoline USTs (W-1 and W-2) that are not equipped with an overfill protection equipment.
- 3. 40 CFR § 280.20(d) Installation. All tanks and piping must be properly installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer's instructions.
 - a. MTA improperly installed shear impact valves under the dispensers that deliver diesel fuel through pressurized lines.
 - b. MTA operates suction piping in association with the two gasoline USTs (W-1 and W-2). Release detection is not required for suction piping that meets the standards in 40 CFR § 280.41(b)(2), however the dispenser for UST W-1 was not equipped as required by installation standards with a check valve.
- 4. 40 CFR § 280.40(a)(1) General requirements for all UST systems. Owners and operators of new and existing UST systems must provide a method, or combination of methods, of release detection that: (1) Can detect a release from any portion of the tank and the connected underground piping that routinely contain product.
 - a. MTA provides no release detection to any piping associated with any of the USTs at this facility.
 - b. MTA's automatic tank gauge is not capable of providing release detection for the four manifolded diesel USTs.
- 5. 40 CFR § 280.40(b) General requirements for all UST systems. When a release detection method operates in accordance with the performance standards in 40 CFR § 280.43 and 40 CFR § 280.44 indicates a release may have occurred, owners and operators must notify the implementing agency in accordance with subpart E.
 - a. MTA's automatic tank gauge reading for the four diesel USTs (W-3,W-4,W-5, and W-6) indicated failing results from October 2004 through September 2005. MTA has made no attempt to notify the State of Maryland or investigate these suspected releases in accordance with 40 CFR Subpart E.